

DEPARTMENT OF TRANSPORTATION**DIVISION OF ENGINEERING SERVICES**

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch
690 Walnut Ave. St. 150
Vallejo, CA 94592-1133
(707) 649-5453
(707) 649-5493

Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:** Pursell, Gary**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-002928**Date Inspected:** 28-May-2008**Project Name:** SAS Superstructure**OSM Arrival Time:** 1330**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 2230**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** See below**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower and OBG Fabrication**Summary of Items Observed:**

Caltrans Quality Assurance (QA) Inspector, Mr. Paul Dawson, arrived on site at the Zhenhua Port Machinery Company (ZPMC) facility at Changxing Island, in Shanghai, China, for the purpose of monitoring welding and fabrication of the San Francisco / Oakland Bay Bridge (SFOBB) components. The QA Inspector observed the following:

CWI: Mr. Chen Xi, Mr. Testino

Orthotropic Box Girder (OBG) Fabrication:

The QA Inspector observed ZPMC welder Mr. Xiao Dianbin, stencil 59440 is using welding procedure specification WPS-B-T-2342-U2 (U-rib) to make flux cored tack welds on OBG deck plate closed rib weld DP568-001-001. The QA Inspector observed a welding current of approximately 330 amps and 30.0 volts. Items observed by the QA Inspector appear to comply with project specifications.

Dayshift QA reported that PMT welds for deck plates DP588-001 and DP563-001 had two failures earlier today. The QA Inspector observed no welding on gantry 1 or gantry 2.

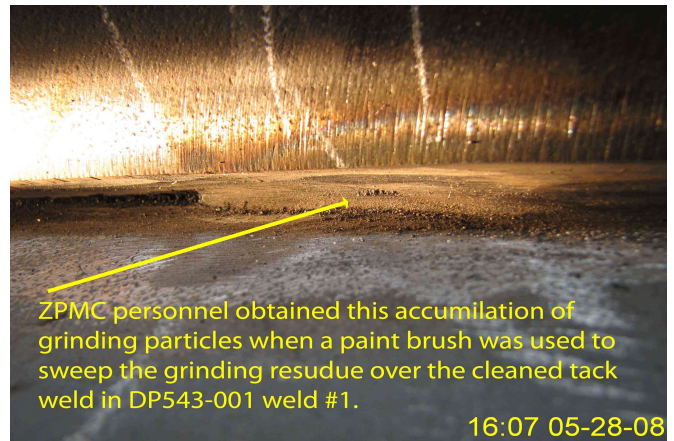
The QA Inspector observed ZPMC workers using a paintbrush to clean grinding residue from tack welds on deck plate DP543-001 then they used the paintbrush to 'sweep' the metallic grinding residue back over the tack welds, (similar to application of MT powder) and ZPMC was grinding to remove linear indications that had formed as the particles were brushed back over the welds. The QA Inspector observed ZPMC appeared to be ready to weld repair the tack welds that had been ground. QA visual inspection of the tack weld grind areas reveals several areas

WELDING INSPECTION REPORT

(Continued Page 2 of 2)

have had the base plate ground to a depth of 1 to 2 mm deep. The QA Inspector performed random MT of several of the tack weld grind areas and linear indications were observed. See the QA Inspector's TL6028 Magnetic Particle Test Report for additional information. QA asked ZPMC QC Inspector Mr. Testino said he will request the QC/MT inspector to perform MT inspections of the tack welds that had been ground on this deck panel. The QA Inspector observed ZPMC MT Inspector performing MT inspections of the tack weld grind areas and the MT Inspector marked the same areas that QA had previously identified as having MT linear indications. Following marking of these areas, ZPMC started to grind the areas that had been marked by the MT inspector for the remainder of this shift. See the photograph below for additional information.

QA observed ZPMC workers using a MT yoke to remove linear indications in deck panel DP563-001 tack weld #1 near the west end of the closed rib weld joint. The QA Inspector later observed this tack weld area has been ground to a depth of approximately 2mm deep in the base plate, and a 2 mm deep gouge in the edge of the closed rib. See the photo below for additional information. QA showed this grind area to QC inspector Mr. Testino who said ZPMC QC will perform a MT inspection of this gouge area prior to performing any welding in this location. See the photograph below for additional information.



Summary of Conversations:

See above.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Patrick Lowry (858) 344-2712, who represents the Office of Structural Materials for your project.

Inspected By:	Dawson,Paul	Quality Assurance Inspector
Reviewed By:	Carreon,Albert	QA Reviewer
